



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/075,096

10/29/2001

Carl E. Whitcomb

WHIT/0002

7255

7590
STREETS & STEELE
Suite 355
13831 Northwest Freeway
Houston, TX 77040

06/04/2007

EXAMINER

NGUYEN, SON T

ART UNIT

PAPER NUMBER

3643

MAIL DATE

DELIVERY MODE

06/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/075,096
Filing Date: October 29, 2001
Appellant(s): WHITCOMB, CARL E.

MAILED

JUN 04 2007

GROUP 3600

Jeffrey L. Streets
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/19/07 appealing from the Office action
mailed 6/27/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. **Claims 1-48,63-65** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Art Unit: 3643

3080680	REYNOLDS ET AL.	4-1959
6202348	REIGER	3-2001
3094810	KALPIN	12-1960
5311700	THOMAS	5-1994
5852896	FLASCH, JR.	12-1998
6223466	BILLINGS	5-2001
GB2073567	BERLIT	10-1981
EP300578	VAN DER GOORBERGH	1-1989

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1,2,15,18,19,29,30,46-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Reynolds et al. (3080680).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3,25,26,31,32,64,65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (as above).

Claims 4-11,27-28,33-38,42,44,49-53,55-57,59-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claims 1 & 29 above, and further in view of Reiger (6202348).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 1,4,10,11 above, and further in view of Thomas (5311700).

Claims 13-14,16,41,63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 1,4 above, and further in view of Berlitz et al. (GB 2073567A).

Claims 17,21,22,24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claim 1 above, and further in view of Van der Goorbergh (EP 300578 A3).

Claims 20,23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claim 1 above, and further in view of Flasch, Jr. (5852896).

Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 29,36 above, and further in view of Flasch, Jr. (as above).

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claim 29 above, and further in view of Kalpin (3094810).

Art Unit: 3643

Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 29,33 above, and further in view of Billings (6223466).

Claims 54,58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claim 49 above, and further in view of Van der Goorbergh (as above) and Berlitz et al. (as above).

(10) Response to Argument

Appellant asserts that one of ordinary skill in the nursery industry would understand the term "root-tip-trapping" to mean a root pruning structure in which root tips become trapped. Thus, a root tip is not "trapped" and a material is not "root-tip-trapping," as those terms are properly interpreted from the present specification, if the root tip continues to extend and grow in the manner that it does in Reynolds, where the roots grow in the interface between the skin and pot. Reynolds would merely redirect root tips in a manner similar to what occurs with other conventional nursery plant containers having smooth side walls.

Due to the nature of the fibrous material (such as peat moss) in Reynolds' barrier/container, the material does trapped some roots, since the claim language and the specification of Appellant do not indicate that all roots are to be trapped in the material. In addition, the nature of roots is unpredictable so some roots may grow and extend in the interface between the skin and the pot of Reynolds, but some roots may grow and hit the skin and then re-route itself back into the fibrous material. There is no

Art Unit: 3643

guarantee that all roots will grow down the sidewall or the interface, for such prediction is impossible for roots. Moreover, to further prove the Examiner's position regarding the roots, Reiger, as agreed by Appellant, teaches a root-tip-trapping material and in col. 8, lines 43-45 of Reiger, Reiger acknowledges that, and quoting exactly as taught by Reiger, "Some root tips may actually penetrate the fabric liner while others will be held in place and will not penetrate the fabric liner". Thus, this teaching of Reiger clearly indicates that, although the material is designated as a root-tip-trapping, some roots will penetrate through the root-tip-trapping material and that there is no guarantee that all roots will be trapped. Note that Appellant's specification does not indicate that all roots will be trapped because the specification merely states roots are trapped, thus, this is broad and can be interpreted many ways such as some roots trapped or $\frac{3}{4}$ of the roots are trapped or all of the roots are trapped and so forth.

Appellant argues that Reynolds' does not expressly disclose any structure that would trap the tips of roots.

As mentioned in the above, some of the roots will be trapped in the fibrous material of Reynolds, thus, depending on the length of the roots, the tips may be trapped in the material also. For example, if the root is small in length, then that root will be completely cover or trapped in the material, hence, this will include the tip of the root. That is why some roots will penetrate through the material and some will not, and the some will not will have tips located in the material since these roots cannot penetrate through the material, hence, root-*tip*-trapping.

Appellant argues that Reynolds does not disclose the limitation of “a root-tip-trapping material” bonded to a inner wall of “a root-impenetrable container”.

Reynolds et al. teaches the root-tip-trapping material as mentioned in the above. In addition, Reynolds et al. also teaches the root-tip-trapping material being bonded to a root-impenetrable container 60. In light of Appellant's specification, “bonded” is defined as, and quoting exactly from Appellant's specification on page 7,

“As mentioned, bonding layers of the root-impenetrable and root-tip-trapping materials may be accomplished by various means, including lamination or using an adhesive. For example, an outer white polyethylene layer may be glued to an inner fabric layer that is either spun bonded and needle punched or a woven or knitted fabric. Any glue may be used, provided it is water-insoluble. Furthermore, any lamination techniques may be used, provided that the lamination temperature employed does not melt the root-tip-trapping layer. Alternatively, **one of the layers may be formed directly onto the other layer**, such as the root-impenetrable material being sprayed over the root-tip-trapping layer”. Emphasis added.

This is exactly what is taught in Reynolds' bonding method, i.e. one layer (layer 60) is formed directly on the other layer (layer 16 of the fibrous pot). Thus, in light of Appellant's specification, Reynolds et al. does teach the root-tip-trapping material “bonded” to the root-impenetrable material as claimed by Appellant.

Moreover, it is not clear as to what is preventing the roots from growing along the interface of the outer and inner layers of the barrier/container of Appellant because, as

Art Unit: 3643

mentioned above, roots are very strong and can penetrate through material (even concrete); thus, unless the bonding is a super glue or a permanent bond of some sort, some roots will extend and grow along the interface of the outer and inner layers of Appellant's barrier/container, which is no different from that of Reynolds. From the specification cited above, it does not appear that Appellant's bonding method is that of a permanent bond or a super glue so as to prevent the roots from growing in the interface between the outer and inner layers. At some point in time, the roots will grow between the layers of the barrier of Appellant since the bonding is not permanent or designated as a strong or super bond because the barrier is designed to slowly disintegrate after all (page 8, 2nd paragraph of Appellant's specification). The bonding of the layers of Reynolds et al. is designated as snugly fit and adheres well. Reynolds et al. states, "By this means a very thin sheet of plastic, of the order of .00025" to .020" may be formed over the pot so that it fits snugly and adheres well." (col. 2, lines 60-62). Thus, this bonding of Reynolds et al. fits the bonded definition in light of Appellant's specification.

Appellant argues that claims 3 and 65 depend from claim 1 and are directed to the surface density of root-tip-trapping elements, such as 10 and 100 elements per square inch, respectively and that Reynolds '860 is not designed to trap root tips, thus, routine testing to achieve this range would not have been obvious in Reynolds.

Reynolds et al. teaches a porous fibrous material such as peat moss, thus, this material has some sort of density having elements per square inch. One of ordinary skill in the art would, through routine testing and experimentation, find a range of density

Art Unit: 3643

applicable to the intended use of the pot of Reynolds et al., noting that Reynolds et al. is concerned about roots growth in pots. In addition, Appellant fails to disclose any criticality regarding this range of density, and it appears from the specification that this range appears to be derived from mere routine testing and experimentation based on various plants (see example 3 of Appellant's specification).

Appellant argues that the Examiner cites Reiger as teaching a root barrier in which he employs a spun bonded needle punched porous fabric. However, Reiger fails to teach, show or suggest bonding the fabric to a root impenetrable material. In addition, Reynolds teaches that the type of pot in his invention "has two essential features." (Reynolds, col. 1, lines 26-27). "The first is that the roots of the plant growing inside it readily penetrate the pot wall, and the second is that the pot, when planted in the soil with the plant, decomposes in due course through bacterial action or other decomposing force." (Reynolds, col. 1, lines 27-32). However, Reiger's fabric is expressly not readily penetrable, but rather traps and constricts roots such that it would prevent the normal extension of the roots outside the pot. Prima facie obviousness is not properly based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference. See *In re Gordon*, 733 F.2d 900, 211 USPQ 1125 (Fed. Cir. 1984). Here, Reiger's fabric would destroy an expressly essential feature of Reynolds. Therefore, the combination is improper.

Reiger was not relied upon for a teaching of bonding layers for barrier. Clearly, Reynolds et al. already teach this feature as explained above. Reiger was relied on for

Art Unit: 3643

a teaching of fibrous material, such as a porous fabric made out of a spun bonded, needle punched fabric selected from polyester, polypropylene or other olefin fiber or a woven or knitted fabric, used in pot/container/barrier for root control, which is same field of endeavor as Reynolds et al. The motivation to combine Reynolds et al. in view of Reiger would be the material as taught in Reiger is of a better material to trap more roots than that of the fibrous material of Reynolds et al., since Reynolds et al. are concerned about root growth control, thus, by replacing the fibrous material of Reynolds et al. with a better root growth controlling material of Reiger would have been obvious based on a better root growth controlling material.

In addition, as mentioned above, not all roots will penetrate through the material, thus, by replacing the material of Reynolds et al. with the material of Reiger will not prevent all roots from extending between the interface of the inner and outer layers of Reynolds et al. since some roots still will occupied the interface based on Reiger's statement of some root tips will penetrate through the material and some root tips will not (col. 8, lines 40-45 of Reiger). Therefore, modification of Reynolds et al. in view of Reiger does not destroy Reynolds' teaching as alleged by Appellant since some roots will still extend and grow between the interface of the sheet 60 and the fibrous material 16.

Appellant argues that Appellant reasserts its comments from Section 7(b)(3) regarding Reynolds and asserts that Thomas fails to teach or suggest the limitations missing from Reynolds. In fact, the examiner cites to Thomas at col. 5, line 11. However, Thomas teaches away from the use of cotton, saying that "[t]he

Art Unit: 3643

cloth should be synthetic, since natural material (cotton, sisal, burlap, etc.) would rot and would then promote rather than hinder root growth." (Thomas, col. 5, lines 11-14).

It is correct that Thomas preferred synthetic material and not the traditional natural material such as cotton that is well known material used in the plant pot/container industry. However, Thomas, nevertheless, does teach a well known material in the art for pot/container, thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ cotton as taught by Thomas as the preferred material for the porous fabric of Reynolds et al. as modified by Reiger, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (to trap and resist root growth) as a matter of obvious design choice.

Appellant argues that there is nothing to suggest that these layers of Berlit could serve as root-tip-trapping layers. (See discussion of Berlit et al., GB 2073567 in Decision on Appeal, Appeal No. 2005-2481, Feb. 9, 2006; Appendix to this Brief). Thus, there is no motivation to combine Berlit with Reynolds/Reiger.

Berlit was not relied on for a teaching of root-tip-trapping layers. Berlit was relied on for a teaching of a container that can be used as a root barrier, the container comprising a layer of material that is made opaque or black (page 1, lines 101-105), and/or the outer layer being made of a plurality of layers/strata 12,13. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the fabric of Reynolds et al. as modified by Reiger opaque or black as

Art Unit: 3643

taught by Berlit et al. in order to prevent transmission of harmful light to the roots (Berlit, page 1, lines 104-105). In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a plurality of layers/strata as taught by Berlit et al. for the outer material 60 of Reynolds et al. as modified by Reiger in order to provide structural integrity to the outer material and to assure that the roots will not penetrate through by providing multiple layers.

Appellant argues that Reynolds failure to teach a root-tip-trapping region and asserts that Van der Goorbergh fails to teach or suggest the limitations missing from Reynolds.

Arguments regarding to Reynolds et al. have been explained in the above. Van der Goorbergh was relied on for a teaching of a seed trough that can be used as a root barrier, the trough having two layers 5,6 that are coated with a reflective material such as aluminum foil. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a reflective material as taught by Van der Goorbergh on the root-impenetrable material of Reynolds et al. in order to reflect light and thus prevent harm to the roots.

In addition, Van der Goorbergh was also relied on for a teaching of layers or sheets made white (col. 2, line 55 and col. 3, line 1). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the polymer sheet of Reynolds et al. white as taught by Van der Goorbergh in order to reflect harmful light away from the plant (col. 2, lines 54-55).

Appellant argues that Appellant reasserts its comments from Section 7(b)(3) regarding Reynolds failure to teach a root-tip-trapping region and asserts that Flasch, Jr. fails to teach or suggest the limitations missing from Reynolds.

Arguments regarding to Reynolds et al. have been explained in the above. Flasch, Jr. was relied on for a teaching of a plant container that can be used as a root barrier, the container comprising a root-impenetrable material 28 that is made out of metal (col. 12, line 38). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ metal as taught by Flasch, Jr. as the preferred material for the root-impenetrable material of Reynolds et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (strength and durability features of metal) as a matter of obvious choice. In re Leshin, 125 USPQ 416.

In addition, Flasch was also relied on for a teaching of using a UV inhibitor to provide UV light stability (col. 12, line 45) in the preferred material for his root-impenetrable layer 28 to block out harmful UV light or radiation. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a UV inhibitors to provide high UV stability as taught by Flasch, Jr. in the root-impenetrable layer of Reynolds et al. in order to block out harmful UV light or radiation.

Appellant argues that Kalpin is asserted as disclosing a sewn construction that forms a container. (Final Office Action, page 13, lines 7-10; citing Kalpin at col. 1, lines 62-71). Applicant does not find mention of sewing in the passage cited by the Examiner. Rather, Kalpin says that the body may be made of a sheet

Art Unit: 3643

material suitably seamed. Since the container is made from a semi-rigid material or waterproof material, it is not apparent that sewing would be suitable.

The sheet material of Kalpin is seamed, since "seamed" means a line of junction formed by sewing together two pieces of material along their margins or line of junction formed by sewing together two pieces of material along their margins.

Appellant argues that Appellant reasserts its comments from Section 7(d)(3) regarding Reynolds/Reiger's failure to teach a root-tip-trapping structure and asserts that Billings fails to teach or suggest the limitations missing from Reynolds/Reiger.

Arguments regarding to Reynolds et al. have been explained in the above. Billings was relied on for a teaching of a planting system that can be used as a root barrier, the system is a production pot-in-pot in which a primary pot 20 is installed in a soil and a second pot 12 is inserted into the primary pot for purpose of growing a tree or shrub (see abstract). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the container of Reynolds et al. as modified by Reiger be a production pot in pot-in-pot production as taught by Billings in order to allow a user with the versatility of placing and removing the inner pot from the outer pot whenever desired and to interchanged from one location to another location by replacing one inner container from an outer container with another similar inner container (see abstract of Billings).

(11) Related Proceeding(s) Appendix


Art Unit: 3643

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



Son T Nguyen
Primary Examiner
AU 3643

Conferees:

Meredith Petravick 

Frank Palo 